12.xi.52

My dear Bill,

Thank you for your letter of Oct. 27, 1952. The fly-wheel cars have come, and the children have been delighted with them. As they are a novelty here, also adults have taken a considerable interest in them. Thank you very much for them !

I was very pleased to hear that you are working at understanding the genetics of K-12; it took me a long time to get deeply enough into it, I mean into the understandable portion of it. Re F+, I have been often thinking in terms of a centromere regarding it. Some time ago (late in september) I had come to the conclusion that F+ was the centromere of a two-armed chromosome, and that one or the other of the two arms is usually lost, as if F+ were a sort of weak centromere which could not carry both arms. I used to prefer this, to Watsons's interpretation for a time, and am even now slightly biased for it. Some new data do not fit Watson's interpretation. This may well be due to other complications, anyhow. I have not reached a definite conclusion about Jim's theory, however. The most important xperiments have still to be done. If it is right, however, the chromosome lost may well be different in different instances, as my data suggest. Also your suggestion as to Hfr is quite good. We have however to account for actual the loss of Hfr in all, or almost all recombinants. Recently again I tested a number of offspring from F^r x Hfr; they were all F-. If the theory I have in mind about F^r is correct, half of this offspring should be transducible fo F+, and half not tranduscible (i.e. F^r), but it will take me some time to test it.

I have given up the idea of the symbol. I did not realise the possible confusion with phage; still I agree that F+ may in the end prove to be phage.

There is not much new to report from my laboratory. I shall be greatly interested to know of your results.

Yours,